

WO 01/19996

SEQUENCE LISTING

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<120> Novel Compounds

<130> BM45412

<160> 10

<170> FastSEQ for Windows Version 3.0

<210> 1

<211> 1509

<212> DNA

<213> *Moraxella catarrhalis*

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<210> 2

<211> 502

<212> PRT

<213> *Moraxella catarrhalis*

<400> 2

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Leu Ala Asp Gly Val Glu Tyr Gln Phe Trp Thr Phe Gly Gly Gln Val
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Pro Gly Gln Met Ile Arg Val Arg Glu Gly Asp Thr Ile Glu Val Gln
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Phe Ser Asn His Pro Asp Ser Lys Met Pro His Asn Val Asp Phe His
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Ala Ala Thr Gly Pro Gly Gly Gly Ala Glu Ala Ser Phe Thr Ala Pro
      145      150      155      160
Gly His Thr Ser Thr Phe Ser Phe Lys Ala Leu Gln Pro Gly Leu Tyr
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Val Tyr His Cys Ala Val Ala Pro Val Gly Met His Ile Ala Asn Gly
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Asp Lys Glu Tyr Tyr Val Met Gln Gly Asp Phe Tyr Thr Lys Gly Lys
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Glu Asp Ala Glu Tyr Val Val Phe Asn Gly Ser Val Gly Ala Leu Thr
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Gly Glu Asn Ala Leu Lys Ala Lys Val Gly Glu Thr Val Arg Leu Phe
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Val Gly Asn Gly Gly Pro Asn Leu Thr Ser Ser Phe His Val Ile Gly
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Glu Ile Phe Asp Lys Val His Phe Glu Gly Gly Lys Gly Glu Asn His
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Phe Lys Val Asp Val Pro Gly Asp Tyr Val Leu Val Asp His Ala Ile
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Glu Glu Asn His Glu Ile Tyr Ser His Lys Gln Thr Asp Ala Val Tyr
      355      360      365
Leu Pro Glu Gly Ala Pro Gln Ala Ile Asp Thr Gln Glu Ala Pro Lys
      370      375      380
Thr Pro Ala Pro Ala Asn Leu Gln Glu Gln Ile Lys Ala Gly Lys Ala
      385      390      395      400
Thr Tyr Asp Ser Asn Cys Ala Ala Cys His Gln Pro Asp Gly Lys Gly
      405      410      415
Val Pro Asn Ala Phe Pro Pro Leu Ala Asn Ser Asp Tyr Leu Asn Ala
      420      425      430
Asp His Ala Arg Ala Ala Ser Ile Val Ala Asn Gly Leu Ser Gly Lys
      435      440      445
Ile Thr Val Asn Gly Asn Gln Tyr Glu Ser Val Met Pro Ala Ile Ala
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Leu Ser Asp Gln Gln Ile Ala Asn Val Ile Thr Tyr Thr Leu Asn Ser
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 <213> *Moraxella catarrhalis*

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 cccgccaagc tgggtgtaaa aatggaaacc gttgaaaaag tcatgctgtc ggcatatggc 300
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 ggtcatatat caacctttag ttttaaagcc ttacagcctg gtttgtatgt ctatcactgt 540
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<210> 4
 <211> 502
 <212> PRT
 <213> *Moraxella catarrhalis*

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 35 40 45
 Asn Ala Ala Ser Gln Glu His Gln Gly Glu Leu Pro Val Ile Asp Ala
 50 55 60
 Ile Val Thr His Ala Pro Glu Val Pro Pro Pro Val Asp Arg Asp His
 65 70 75 80
 Pro Ala Lys Val Val Lys Met Glu Thr Val Glu Lys Val Met Arg
 85 90 95
 Leu Ala Asp Gly Val Glu Tyr Gln Phe Trp Thr Phe Gly Gly Gln Val
 100 105 110
 Pro Gly Gln Met Ile Arg Val Arg Glu Gly Asp Thr Ile Glu Val Gln
 115 120 125
 Phe Ser Asn His Pro Asp Ser Lys Met Pro His Asn Val Asp Phe His

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 145 150 155 160
 Gly His Thr Ser Thr Phe Ser Phe Lys Ala Leu Gln Pro Gly Leu Tyr
 165 170 175
 Val Tyr His Cys Ala Val Ala Pro Val Gly Met His Ile Ala Asn Gly
 180 185 190
 Met Tyr Gly Leu Ile Leu Val Glu Pro Lys Glu Gly Leu Pro Lys Val
 195 200 205
 Asp Lys Glu Tyr Tyr Val Met Gln Gly Asp Phe Tyr Thr Lys Gly Lys
 210 215 220
 Tyr Gly Glu Gln Gly Leu Gln Pro Phe Asp Met Glu Lys Ala Ile Arg
 225 230 235 240
 Glu Asp Ala Glu Tyr Val Val Phe Asn Gly Ser Val Gly Ala Leu Thr
 245 250 255
 Gly Glu Asn Ala Leu Lys Ala Lys Val Gly Glu Thr Val Arg Leu Phe
 260 265 270
 Val Gly Asn Gly Gly Pro Asn Leu Thr Ser Ser Phe His Val Ile Gly
 275 280 285
 Glu Ile Phe Asp Lys Val His Phe Glu Gly Gly Lys Gly Glu Asn His
 290 295 300
 Asn Ile Gln Thr Thr Leu Ile Pro Ala Gly Gly Ala Ala Ile Thr Glu
 305 310 315 320
 Phe Lys Val Asp Val Pro Gly Asp Tyr Val Leu Val Asp His Ala Ile
 325 330 335
 Phe Arg Ala Phe Asn Lys Gly Ala Leu Gly Ile Leu Lys Val Glu Gly
 340 345 350
 Glu Glu Asn His Glu Ile Tyr Ser His Lys Gln Thr Asp Ala Val Tyr
 355 360 365
 Leu Pro Glu Gly Ala Pro Gln Ala Ile Asp Thr Gln Glu Ala Pro Lys
 370 375 380
 Thr Pro Ala Pro Ala Asn Leu Gln Glu Gln Ile Lys Ala Gly Lys Ala
 385 390 395 400
 Thr Tyr Asp Ser Asn Cys Ala Ala Cys His Gln Pro Asp Gly Lys Gly
 405 410 415
 Val Pro Asn Ala Phe Pro Pro Leu Ala Asn Ser Asp Tyr Leu Asn Ala
 420 425 430
 Asp His Ala Arg Ala Ala Ser Ile Val Ala Asn Gly Leu Ser Gly Lys
 435 440 445
 Ile Thr Val Asn Gly Asn Gln Tyr Glu Ser Val Met Pro Ala Ile Ala
 450 455 460
 Leu Ser Asp Gln Gln Ile Ala Asn Val Ile Thr Tyr Thr Leu Asn Ser
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SEQUENCE LISTING

<110> Joelle Thonnard

<120> Novel Compounds

<130> BM45412

<150> 9921691.3

<151> 1999-09-14

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<170> FastSEQ for Windows Version 4.0

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<212> DNA

<213> Moraxella catarrhalis

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<210> 2

<211> 502

<212> PRT

<213> Moraxella catarrhalis

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Pro	Lys	Ser	Ser	Thr	Val	Asp	Ala 40	Ala	Ala	Lys	Thr 45	Ala 50	Asn 55	Ala 60	Asp
Asn	Ala	Ala	Ser	Gln	Glu	His	Gln	Gly	Glu	Leu	Pro 60	Val 65	Ile 70	Asp 75	Ala 80
Ile	Val	Thr	His	Ala	Pro	Glu	Val	Pro	Pro	Pro	Val 75	Asp 80	Arg 85	Asp 90	His 95
Pro	Ala	Lys	Val	Val	Val	Lys	Met	Glu	Thr 90	Val	Glu	Lys 95	Val 100	Met 105	Arg 110
Leu	Ala	Asp	Gly	Val	Glu	Tyr	Gln	Phe 105	Trp	Thr	Phe	Gly 110	Gly 115	Gln 120	Val 125
Pro	Gly	Gln	Met	Ile	Arg	Val	Arg	Glu	Gly	Asp	Thr 120	Ile 125	Glu 130	Val 135	Gln 140
Phe	Ser	Asn	His	Pro	Asp	Ser	Lys	Met	Pro	His 140	Asn 145	Val 150	Asp 155	Phe 160	His 165
Ala	Ala	Thr	Gly	Pro	Gly	Gly	Gly	Ala	Glu	Ala	Ser 155	Phe 160	Thr 165	Ala 170	Pro 175
Gly	His	Thr	Ser	Thr	Phe	Ser	Phe	Lys	Ala 170	Leu	Gln	Pro 175	Gly 180	Leu 185	Tyr 190
Val	Tyr	His	Cys	Ala	Val	Ala	Pro	Val	Gly	Met	His 185	Ile 190	Ala 195	Asn 200	Gly 205
Met	Tyr	Gly	Leu	Ile	Leu	Val	Glu	Pro	Lys	Glu	Gly	Leu 205	Pro 210	Lys 215	Val 220
Asp	Lys	Glu	Tyr	Tyr	Val	Met	Gln	Gly	Asp	Phe 220	Tyr 225	Thr 230	Lys 235	Gly 240	Lys 245
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Glu	Asp	Ala	Glu	Tyr	Val	Val	Phe	Asn	Gly	Ser 250	Val	Gly 255	Ala 260	Leu 265	Thr 270
Gly	Glu	Asn	Ala	Leu	Lys	Ala	Lys	Val	Gly	Glu	Thr 265	Val 270	Arg 275	Leu 280	Phe 285
Val	Gly	Asn	Gly	Gly	Pro	Asn	Leu	Thr	Ser	Ser	Phe 285	His 290	Val 295	Ile 300	Gly 305
Glu	Ile	Phe	Asp	Lys	Val	His	Phe	Glu	Gly	Gly	Lys 300	Gly 305	Glu 310	Asn 315	His 320
Asn	Ile	Gln	Thr	Thr	Leu	Ile	Pro	Ala	Gly	Gly	Ala 315	Ala 320	Ile 325	Thr 330	Glu 335
Phe	Lys	Val	Asp	Val	Pro	Gly	Asp	Tyr	Val	Leu	Val	Asp 330	His 335	Ala 340	Ile 345
Phe	Arg	Ala	Phe	Asn	Lys	Gly	Ala	Leu	Gly	Ile	Leu	Lys 345	Val 350	Glu 355	Gly 360
Glu	Glu	Asn	His	Glu	Ile	Tyr	Ser	His	Lys	Gln	Thr 360	Asp 365	Ala 370	Val 375	Tyr 380
Leu	Pro	Glu	Gly	Ala	Pro	Gln	Ala	Ile	Asp	Thr 380	Gln	Glu 385	Ala 390	Pro 395	Lys 400
Thr	Pro	Ala	Pro	Ala	Asn	Leu	Gln	Glu	Gln	Ile 395	Lys	Ala 400	Gly 405	Lys 410	Ala 415
Thr	Tyr	Asp	Ser	Asn	Cys	Ala	Ala	Cys	His 410	Gln	Pro	Asp 415	Gly 420	Lys 425	Gly 430

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<212> DNA

<213> Moraxella catarrhalis

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<211> 502

<212> PRT

<213> Moraxella catarrhalis

<400> 4

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Pro	Lys	Ser	Ser	Thr	Val	Asp	Ala	Ala	Ala	Lys	Thr	Ala	Asn	Ala	Asp
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Asn	Ala	Ala	Ser	Gln	Glu	His	Gln	Gly	Glu	Leu	Pro	Val	Ile	Asp	Ala
		50				55					60				
Ile	Val	Thr	His	Ala	Pro	Glu	Val	Pro	Pro	Pro	Val	Asp	Arg	Asp	His
65					70					75				80	
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Val	Tyr	His	Cys	Ala	Val	Ala	Pro	Val	Gly	Met	His	Ile	Ala	Asn	Gly
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Met	Tyr	Gly	Leu	Ile	Leu	Val	Glu	Pro	Lys	Glu	Gly	Leu	Pro	Lys	Val
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Phe	Lys	Val	Asp	Val	Pro	Gly	Asp	Tyr	Val	Leu	Val	Asp	His	Ala	Ile
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Phe	Arg	Ala	Phe	Asn	Lys	Gly	Ala	Leu	Gly	Ile	Leu	Lys	Val	Glu	Gly
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Glu	Glu	Asn	His	Glu	Ile	Tyr	Ser	His	Lys	Gln	Thr	Asp	Ala	Val	Tyr
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Leu	Pro	Glu	Gly	Ala	Pro	Gln	Ala	Ile	Asp	Thr	Gln	Glu	Ala	Pro	Lys
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Thr	Pro	Ala	Pro	Ala	Asn	Leu	Gln	Glu	Gln	Ile	Lys	Ala	Gly	Lys	Ala
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Thr	Tyr	Asp	Ser	Asn	Cys	Ala	Ala	Cys	His	Gln	Pro	Asp	Gly	Lys	Gly
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Val	Pro	Asn	Ala	Phe	Pro	Pro	Leu	Ala	Asn	Ser	Asp	Tyr	Leu	Asn	Ala
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